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ABSTRACT

The 1998 Work Force Development Study focuses on Spartanburg Technical College's (STC's) (South Carolina) role in preparing new workers and training/retraining the current workforce. Surveys were mailed to employers in business and industry--the response rate was 10%. In addition, a series of focus groups, including various business, industry, educational, and community leaders, discussed issues concerning their educational needs and how they can be met by STC. The study is separated into five sections, with focus group and employer comments included at the end of each. Results indicate there is high employee availability in the community, especially among low-skilled workers. There is an increased demand for technical or four-year college graduates. The top five technical jobs include secretarial/administrative assistant, engineer, accountant/bookkeeper, computer technician, and health services practitioner. The basic skills needed currently, and predicted by employers to be needed in the future, include reading, speaking/listening, writing, and mathematics. At least 20% of employers surveyed indicated that most employees need training in all workplace competencies, with the majority stating that they would utilize technical colleges to do so. Though only about 25% of employers were familiar with STC, about half agreed that it seemed a good place to study and earn a degree. (YKH)

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SPARTANBURG
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Study

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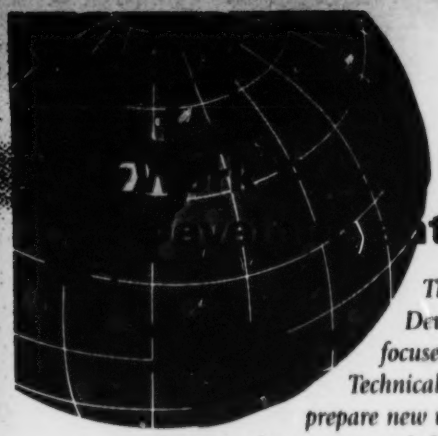


t Study

The Work Force Development Study focused on Spartanburg Technical College's roles to prepare new workers and to train and retrain the current work force. In this study, the key constituency group was business and industry in the Spartanburg Technical College service area - the Upstate counties of Spartanburg, Union and Cherokee in South Carolina. The findings will assist the College to adjust existing programs and services and to develop new offerings. The results will help direct the College's future development complimentary to its economic service area's growth.

Method and Sample

The data for the study came from two sources:

1. A mailed survey to employers in three counties.
2. A series of focus groups composed of human services professionals, business and marketing managers, employers from Spartanburg Technical College's advisory groups, allied health professionals, educational leaders and government officials.

Survey

The survey was developed by J. W. Quinley and Associates. A total of 3,080 survey instruments were mailed to employers in the College's service area. Two hundred ninety three were returned, for a response rate of 10 percent.[1]

1. The number of surveys not delivered due to wrong addresses or because the company no longer exists are not known. Therefore, the actual response rate is higher - perhaps by as much as five to 10 percentage points.

Focus Groups

Six focus groups were held at Spartanburg Technical College. Each group was asked to discuss six general questions. Participants responded to these questions and discussed related issues. The questions inquired about the educational needs of the respondents and the College's potential role in fulfilling these needs. The questions are provided in Table 1.

Employers' Needs

Employee Availability

How available are the following types of entry-level employees for your organization? Low skilled, skilled, professional.

- Approximately 47 percent of the responders indicated that low-skilled employees were "somewhat available;" 37 percent, "almost always available." Similarly, in the category of skilled employees, 66 percent indicated that employees were "somewhat available; 26 percent, "almost always available." Finally, in the professional category, 60 percent responded that employees were "somewhat available;" 25 percent, "almost always available."
- An additional 17 percent responded "not applicable to our organization." The highest response was in the area of low skilled employees.
- Further details are given in Table 2.

Employees' Education Level

What percentage of your new employees do you estimate need the educational credentials listed, and what do you estimate the percentages to be in five years? High school graduate, proprietary certificate, technical college graduate, four-year college graduate, graduate school graduate.

Comparing the response trends, employers see a minimum need for employees to be high school graduates now and in the future.

There is somewhat of an increase in demand for employees to be technical college graduates and four-year college graduates.

Focus Group and Employer Comments

The allied health focus group addressed the staffing shortage most health care facilities are facing. In an effort to keep on top of the turnover, one hospital offers management training, customized to their procedures, for both staff and existing managers. According to one employer, training everyone with a similar knowledge base, they are able to be a more efficient work force.

TABLE 1
Focus Group Questions

1. **What are the major issues, trends and conditions facing the service region?**
2. **What specific educational and training needs do customers or client groups in this community have that could be served by the College?**
3. **What are the skills and competencies that you look for when you hire an entry-level employee? What do you expect students attending STC to learn? Be able to do?**
4. **How familiar are you with STC programs and services? What are some effective ways for the College to keep you informed (involved)?**
5. **What is your perception of the extent and effectiveness of how the College is meeting these needs at the present time?**
6. **What specific suggestions do you have for the College faculty and staff that would lead to improvement in service now, in the future?**

Sixty-three different companies, agencies, or groups were represented in the focus groups. These ranged widely by type and size of industry or organization.

Work Force Needs

Top Technical Jobs

List the top five technical jobs needed in your work force (eg.. secretary, accountant, radiologist, welder and mechanical engineering technician).

Based on approximately 820 identified careers, these are the top five job categories indicated by employers as the areas of greatest need:

- **Secretarial/ Administrative Assistant (138)**
- **Engineer (mechanical, civil, electrical) (98)**
- **Accountant/ Bookkeeper (73)**
- **Computer Technician (70)**
- **Health Services (nursing, technician, dietitian, lab tech) (57)**

Other responses: Maintenance Technicians (22); Sales (19); Machine Operator /Machinist (18); Welders (16); Dental Assistant/Hygienist (7); Food Service (6).

Work Force Skills - Now and in Five Years

How important are basic work force skill needs today, how important is training needed today, and how important will skills be in five years?

The basic skills employers rated were reading, speaking/listening, writing, and mathematics. Employers responded to the survey based on percentage of current and future work force needing these skills to be successful in their workplace.

Basic Skills Needed Today

Overwhelmingly, employers reported that all the basic skills areas represented important areas for their current work force; responses ranged from 66 percent to 86 percent across the basic skill items.

- Reading (86 percent) and speaking/listening comprehension (85 percent) were considered by the employers as the most important basic skills for most of their current work for

TABLE 2
Employee Availability [2]

PERCENT AVAILABLE	NOT AVAILABLE	SOMEWHAT AVAILABLE	ALMOST ALWAYS AVAILABLE
Low Skilled	16%	47%	37%
Skilled	8%	66%	26%
Professional	16%	60%	25%

2 One hundred and seventeen responses indicated "not applicable" in their responses. This represents an additional 17 percentage response not reflected in the table.

• This was followed by writing and mathematics skills at 66 percent each.

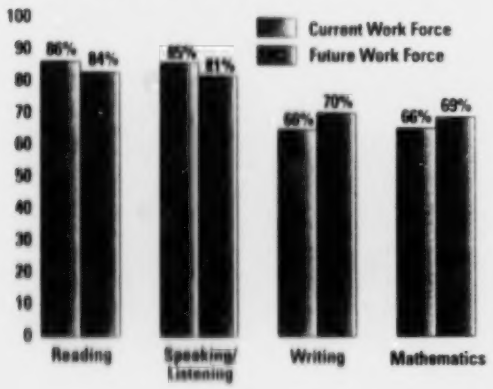
Basic Skills Needed in the Future

Employers ranked the basic skills that will be important for their work force five years into the future in a similar order as the ranking for their current work force. Reading (84 percent) and speaking/ listening (81 percent) are considered by the employers as most important for their work force in five years.

• For writing and mathematics skills, the values were more varied. In writing, 17 percent of the employers feel this skill is necessary for 51 percent to 75 percent of their work force; however, 70 percent of the employers see this skill as critical for 76 percent to 100 percent of their future work force.

• In mathematics, 16 percent of the employers feel this skill is necessary for 51 percent to 75 percent of their future work force. Another 69 percent see it as a critical skill for 76 percent to 100 percent of their future work force.

FIGURE 1
Basic Skills Needed Now and in Five Years



Focus Group and Employer Comments

In the industrial /manufacturing area, a high degree of basic skills in mathematics, measurement and use of the metric system is needed.

Employees lacking a strong foundation in the academic basics may not be able to be educated for more advanced technically specific skills. The level of basic skills needed is rising above the typical "reading, writing and arithmetic."

Thinking Skills needed for Today's Employees

Thinking skills rated by employers were: problem solving, decision-making, learning new skills and understanding diverse cultures and peoples.

Employers responded to the survey based on percentage of current and future work force needing these skills to be successful in their workplace.

• In this category, learning new skills (69 percent) and problem-solving skill (67 percent) were as important for today's work force.

• The areas of decision-making (60 percent) and understanding diverse cultures and people (50 percent) followed closely in the level of importance.

Thinking Skills Needed for Future Work Force

Employers ranked the thinking skills that will be important for their work force five years into the future in the same order as the ranking for their current work force.

• When comparing percent of increase in demand for basic skills, the skill area of "understanding diverse cultures and peoples" shows a 24 percent increase from today's work force needs to the work force needs in five years. All other areas increased to a lesser degree.

Focus Group and Employer Comments

One employer noted, "our future work force will be multi-talented and will need problem-solving skills and decision-making skills."

Employers also believe that thinking skills are as important and as needed as the basic skills. In order to keep pace with competition and technology, "employees of the future will need more skill sets related to problem-solving and decision-making."

Workplace Competencies Needed for Today's Employees

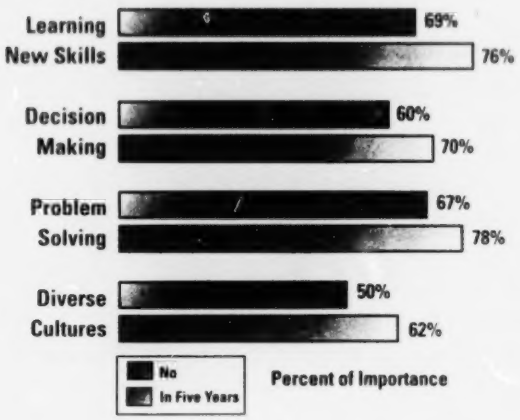
Employers were asked to rate the importance of 10 workplace competencies for their current and future work force. *The skills included in the category included: work ethic, interpersonal skills, leadership, acquiring and using information, computer literacy, using time/ money/ materials/space/staff, using TQM concepts, general knowledge & experience with work, demonstrating job keeping & advancing skills, performing technical tasks specific to job.*

• Of the 10 areas surveyed in this category, the top two areas indicated as important workplace competencies for the current work force are work ethic (83 percent) and interpersonal skills (74 percent).

• The middle grouping of competencies included general knowledge and experience with work (67 percent); acquiring and using information (62 percent); demonstrating job keeping and advancing skills (56 percent); using time, money, materials, space and staff wisely (55 percent); and performing technical tasks specific to job (53 percent).

• Of some importance, but less than 50 percent, are the areas of computer literacy (45 percent) and using total quality management concepts (42 percent).

FIGURE 2
Thinking Skills Needed Now and in Five Years



Workplace Competencies for the Future

In five years, employers rated "leadership skills," "computer literacy," "use of TQM concepts" and "performing technical tasks" as the most important work place competencies employees need to possess.

Focus Group and Employer Comments

A comment from one employer stated, "interpersonal skills and computer literacy skills are primary for placement in our industry."

One industry saw a need for professionals with foreign language abilities.

There is a large demand for computer skills across the work force. Many workers currently train/retrain themselves. Most companies saw a need for courses offered at their work site.

From the educator's focus group, they saw a need to make skills taught relevant to the workplace. One educator mentioned the three R's — respect, responsibility and resourcefulness. There is also a strong need and demand for continued career guidance and job placement services.

The human services focus group expressed a need for more student involvement in their communities via practicums, community-based projects and team type activities.

Work Force Training

Training Needed for the Current Work Force

Using the same skill sets as previously reported for the degree of importance for basic thinking skills and workplace competencies, employers were asked to indicate the extent to which their current work force needed training today.

Training in Basic Skills

Of the four basic skills surveyed, approximately half of the current work force needs some training in speaking/listening, writing and mathematics. Less than 25 percent of the current work force needs training in reading.

Training in Thinking Skills

Employers rated all areas of thinking skills training as equally important.

Training in Workplace Competencies

Almost one-third of employers surveyed agreed that the majority of their current work force needs training in the work place competencies of "work ethics" and "interpersonal skills." At least 20 percent of all employers state that most employees need training in all workplace competencies.

Focus Group and Employer Comments

One employer from Cherokee County mentioned the need for more computer training for the entire organization's staff at their work site.

Specific to the dental hygiene industry, training was requested in the Spartanburg community.

Employers stressed the need for training to be accessible and to be focused in the areas of leadership, teamwork and diversity.

FIGURE 3
Factors Driving the Need for Training

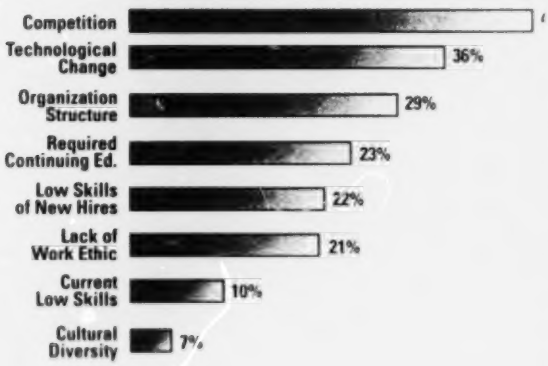
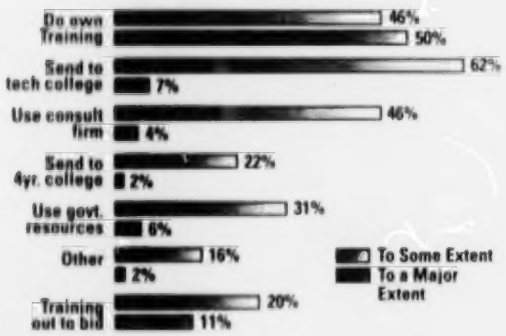


FIGURE 4
Approaches to Training



Apprenticeship program, intern/externship, and journeyman programs were mentioned in a variety of work settings. Employers see the value of hands-on, job preparation through these types of programs.

There is a need for training in cultural diversity due to the high number of European companies who have relocated to Upstate South Carolina.

Factors Driving Training

To what extent are the following factors driving the need for work force training in your organization?

- An average of 56 percent of the employers surveyed noted that most of the factors listed are driving their organization's need for work force training to some extent. Two factors had a higher response in the "to a major extent" column: competition/need to increase productivity (45 percent) and technological change (36 percent).
- The next factors garnering significant support were organization structure & process change (29 percent) and required continuing education (23 percent).
- At the bottom of the factors driving training needs were low skills of current work force (10 percent) and cultural diversity of work force (7 percent).

Focus Group and Employer Comments

Continuing education for the healthcare industry is critical. Areas mentioned with specific needs were coding of insurance medical forms, software updates, insurance procedures, managed care requirements and basic managerial skills.

Many employers referred to the impact on computers and technology or organizational structure and company changes. These two factors appeared in several focus group comments. Employers seem to value employees who are able to learn quickly and grasp change.

Training Approaches

To what extent do you anticipate your organization using the following approaches to training in the next five years?

- Fifty percent of the employers noted that they would conduct their own training.
- Employees indicated they would use a technical college (62 percent) to provide employee training. Forty -six percent responded they would use a private/consulting firm to some extent.
- Training options that did not attract employers to a great extent were four-year college/universities, government resources training put out for bid, or other categories.

Experience with Spartanburg Technical College

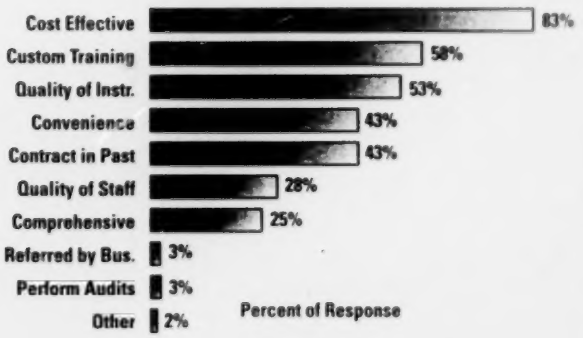
Employers were asked questions about their familiarity with Spartanburg Technical College, it's programs and services, availability as a training site, and their impressions of the College. Captured below are their responses to this section of the survey.

Knowledge of STC Programs and Services

How much do you know about the following STC programs and services?

- Employers showed limited familiarity with Spartanburg Technical College programs. On average, only about one-fourth of the employers indicated they were well acquainted with the College. Specifically, they indicated familiarity with the technical degree, diploma and certificate programs (25 percent) and the two-year associate degree transfer program (26 percent).
- Four categories were marked as somewhat familiar by 50 percent of the employers. Those categories were: customized training; occupational short-term classes; technical degree, diploma and certificate programs; and two-year associate degree transfer programs.

FIGURE 4
Rationale for Using STC to Conduct Training



- Seven categories were rated as no knowledge by 50 percent or more of the employers. Those categories identified were: career exploration services, technical scholars, training programs for unemployed/underemployed, apprenticeship training, English for non-native speakers, training through distance education and cooperative education.

Using STC to Conduct Training

Employers were asked to respond to 10 reasons for using STC to conduct training for their organizations. Approximately 21 percent of the employers responding had previous experience with STC and their training opportunities. Listed in figure 4 are the results from the 21 percent who responded "yes" to having had experience with STC to conduct training.

Impressions of STC

Please give us your impressions of Spartanburg Technical College even if you do not have first hand knowledge.

- Employers provided their perceptions of Spartanburg Technical College by indicating the extent of their agreement or disagreement with 15 statements describing the College. Employers were asked to provide their perceptions even though they may have no first-hand knowledge of the College.
- Fifty-four percent of the employers strongly agreed that STC was a good place to study part-time and earn a degree. Forty percent of the employers strongly agreed that STC offers a high quality education at an affordable price.
- Other significant comments were in the somewhat agree status. As a facility to meet the education and training needs of area business/industry, 47 percent responded. Forty-three percent somewhat agreed that STC may be considered a second choice college. Finally, 42 percent felt STC is a good place to receive the first two years of a four-year degree.

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